

***Abstract***

A laser machining system is provided that includes a work-piece and at least one light source that produces a laser light along a first axis. The laser light defines a first portion of laser light and a second portion of laser light radially inward relative to the first portion. An optical element reflects the first portion of laser light at an angle relative to the first axis so that the second portion of laser light passes through the optical element along the first axis. A first optical assembly collimates the first portion of laser light into a first cross-sectional area on the work-piece at a sufficient power density to machine the work-piece.